REMARKS/ARGUMENTS

Claims 1-10 are pending in the Application. By this amendment, and as explained below, Claims 1 and 9 are being amended to restore these claims to their form as filed in this application. Such claims are submitted to clearly distinguish patentably over the cited references in that form. No new matter is involved.

This application was filed in the U.S. under the PCT under 35 U.S.C.§ 371. By letter to the International Preliminary Examination Authority of 2 June, 2000, the applicant made amendments to Claims 1 and 9 of the original claims 1-10 in the PCT application. This was also noted in the papers filed in the U.S. Patent and Trademark Office so that the claims of record in this application included amended claims 1 and 9.

On June 29, 2004, a first Office Action issued in connection with this application. Applicant responded by filing a Response To Office Action on November 4, 2004. In the "listing of claims" which begins on page 2 of the Response, applicant advertently set forth the original claims of the PCT application and designated such claims as "Original". In reality, however, the "Original" claims in this application included claims 1 and 9 in their amended form. Accordingly, and by this amendment, claims 1 and 9 are being amended to return them to the form in which they were filed in the U.S. Patent and Trademark Office. Minor amendments being made to claims 1 and 9 are simply to return them to the correct form in which they were filed. In fact, the original examination of this application should have been based on claims 1 and 9 as amended, so that restoring the claims to that form should not raise new issues or require further searching.

In any event, the correct form of claims 1-10 as presented herein clearly distinguishes patentably over the prior art as discussed hereafter.

In paragraph 2 on page 2 of the Office Action, claims 1-4 and 7-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,402,485 of Takato et al. In paragraph 11 on page 5 of the Office Action, claims 5 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Takato in view of U.S. Patent 4,458,112 of Svala. These rejections are respectfully traversed.

As more clearly set forth by the corrected version of the claims presented herein, the present invention relates to an OLIC (Office Line Interface Circuit), as contrasted with Takato et al. which pertains to and is only applicable in an SLIC (Subscriber Line Interface Circuit). These circuits are always at the opposite ends of a pairline, and they therefor function quite differently.

Claim 1 defines an electric device (201, 301) for connecting an analogue data transfer device (202) by means of a control unit (203) to a digital transfer system. As corrected herein, the electric device of claim 1 includes "a current amplifier arrangement (214, 314, 340) for looping a certain current fed into the twin cable from its other end (emphasis added)." Therefore, claim 1 clearly distinguishes patentably over Takato et al.

As also previously pointed out, the basic requirements for OLIC and SLIC devices are very different. An OLIC (present invention) must loop a DC current, whereas an SLIC (Takato et al.) generates DC current and feeds it to the pairlines. The current directions are also opposite, requiring different circuits if implemented by electronic means as amplifiers always are. An OLIC must be either high impedence (in the on-hook state) or it must be of a certain DC-impedence in the off-hook state. The DC-impedence of an SLIC is fixed at all times, but it must sense the on/off hook state sent from the other end of the line by a telephone set (or by an OLIC, which simulates a telephone set). This requirement that an OLIC must change its DC capabilities, while an SLIC is fixed in this sense, makes the basic

design of an OLIC different from an SLIC. There are many patents relating to SLICs, and none of them describe anything usable for an OLIC. None of the cited references even mention anything applicable to an OLIC. Therefore, it cannot be obvious to one skilled in the art to apply improvements for an SLIC to an OLIC circuit.

A principal feature in accordance with the present invention is the current amplifier arrangement (214, 314, 340) and the connections thereof to the other parts within the electric device (201, 301). On the other hand, Takato et al. is concerned with controlling the impedance of a certain SLIC. This is clearly different from the present invention. Nor does the fact that both the present invention and Takato use current mirrors mean that the present invention is in any way suggested by the reference. The present invention is not about current mirrors, as such, but rather current mirrors as they are connected with other portions of the system, as set forth in claim 1.

The arrangement described in the Takato et al. reference is directed to impedance control for terminating a pairline. Because the OLIC in accordance with the invention is connected to the pairline (as is the SLIC of Takato et al.), it must have a controlled impedance at voice frequencies (or more commonly at the data frequencies). The manner in which the present invention accomplishes impedance control is completely different from that utilized in Takato et al. The present invention does not concern impedance control at data frequencies. As described in connection with Fig. 2 of the Application, a certain impedance is presented to the pairline by switching a real impedance between the pair of wires. This is completely different from the manner in which Takato et al. accomplishes impedance control. The fact that impedance control in accordance with the present

invention is totally different from that of Takato et al. is yet another difference preventing anticipation of the present invention by Takato et al.

As previously noted by Applicants with respect to the Svala reference, a careful review of this reference fails to show that it is in any way pertinent to the present invention. The low pass filter in Svala passes the voice band frequencies, rejecting the switcher frequencies, while the low pass filter in the case of the present invention is actually a loop filter for a control loop. The present invention implements it as an integrator, and the controlled parameter is the pairline DC-voltage, which is kept as constant in the OLIC implementation. This is not a principal feature of the present invention, and could be implemented in different ways. Nothing disclosed in Svala would be usable for an OLIC in the manner of the present invention, without substantial inventive steps.

Claims 2-5 depend, directly or indirectly, from and contain all of the limitations of claim 1, so that such claims are also submitted to clearly distinguish patently over the prior art.

In Paragraph 14 on page 6 of the Office Action, claim 6 is objected to as being dependent upon a rejected base claim, but is indicated as being allowable if rewritten in independent form so as to include the limitations of the base claim and any intervening claims. This is followed by a statement of reasons for allowable subject matter in Paragraph 16. Again, this has been duly noted by Applicants.

Claims 7 and 8 depend, directly or indirectly, from and contain all of the limitations of claim 1, so that such claims are also submitted to clearly distinguish patently over the art.

Independent claim 9 as restored to its original form includes language similar to independent claim 1. As such, it defines a method for simulating an analogue telephone apparatus in a twin cable connected to a data transfer device in which

"the loop current fed into the twin cable from its other end is amplified by means of a current amplifier arrangement" (emphasis added). Claim 9 is submitted to clearly distinguish patently over the art.

Claim 10 depends from and contains all of the limitations of claim 9, so that such claim is also submitted to clearly distinguish patently over the art.

In conclusion, claims 1-10 are submitted to clearly distinguish patentably over the prior art for the reasons set forth above. Therefore, reconsideration and allowance are respectfully requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6846 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
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